UNIVERSITY OF JOHANNESBURG

DEPARTMENT OF ECONOMICS AND ECONOMETRICS

Macroeconomic Issues in Development (MAD9XO2)

FINAL ASSESSMENT: NOVEMBER 2015

APK CAMPUS

DATE: 04/11/2015
MARKS: 100
TIME: 3h00 HOURS
ASSESSOR: Prof. Kevin Nell
EXTERNAL MODERATOR: Prof. Manoel Bittencourt

Instructions:

1) The exam consists of 5 questions
2) Answer all the questions

SURNAME	
INITIALS	
STUDENT NUMBER	
CELL NUMBER	

Mark schedule

	Mark		Mark		Mark		Mark		Mark
Q1		Q2		Q3		Q4		Q5	
10		(a)(15)		15		(a)(15)		(a)(10)	
		(b)(10)				(b)(15)		(b)(10)	

Total mark :

QUESTION 1

Suppose a developing economy experiences a permanent increase in its population growth rate at time t = 0. Assuming that the economy is in an initial steady-state position, use the Solow (1956) diagram to model the effect of an increase in the population growth rate. In addition, sketch a graph of how the natural logarithm (ln) of output per worker evolves over time with and without the increase in the population growth rate. Does the increase in population growth permanently affect the growth rate or level of output per worker? (**Hint:** The Solow diagram has the output-technology ratio (*y*) is on the vertical axis and the capital-technology ratio (*k*) on the horizontal axis). **(10 points)**

QUESTION 2

(a) Use the Solow diagram of transition dynamics to illustrate and explain under what conditions there will be unconditional convergence between two economies. [**Hint:** the relevant equation is $\dot{k}/k = s(y/k) - (n + g + \delta)$]. **(15 points)**

(b) Now consider a typical cross-country growth rate regression model:

$$gpc_i = \alpha_0 + \alpha_1 PCY_i , \qquad (1)$$

where gpc_i is the growth rate of per capita income in country *i*, and PCY_i is the initial level of per capita income.

Based on the results obtained from estimating equation (1), do empirical studies, in general, find evidence of unconditional convergence? Are these results incompatible with the long-run growth prediction of the Solow model? With specific reference to equation (1), provide a detailed explanation. **(10 points)**

QUESTION 3

With an appropriate diagram, provide a detailed explanation of the New Economic Geography (NEG) model of Krugman and Venables (1995). Make sure that you relate the predictions of the NEG model to some of the historical stylised facts of the 'world economy' since 1750. **(15 points)**

QUESTION 4

(a) Use a graph to illustrate and explain the financial liberalisation hypothesis of McKinnon (1973) and Shaw (1973). **(15 points)**

(b) Does the empirical evidence, as surveyed in Bumann et al. (2013) (*"Financial Liberalization and Economic Growth: A Meta-analysis"*), support the financial liberalisation hypothesis? Explain with specific reference to some of the criticisms that have been levelled against financial liberalisation. **(15 points)**

QUESTION 5

(a) What predictions do structuralist models and Kaldor's model of 'forced' saving make about the relationship between inflation and growth? Draw a clear distinction by providing a brief description of each model. **(10 points)**

(b) Survey the empirical evidence in Sepheri and Moshiri (2004) (*"Inflation-Growth Profiles Across Countries: Evidence from Developing and Developed Countries"*) and Pollin and Zhu (2006) (*"Inflation and Economic Growth: a cross-country nonlinear analysis"*), to discuss the relevance of the models in 5(a). What are the main implications for monetary policy? **(10 points)**